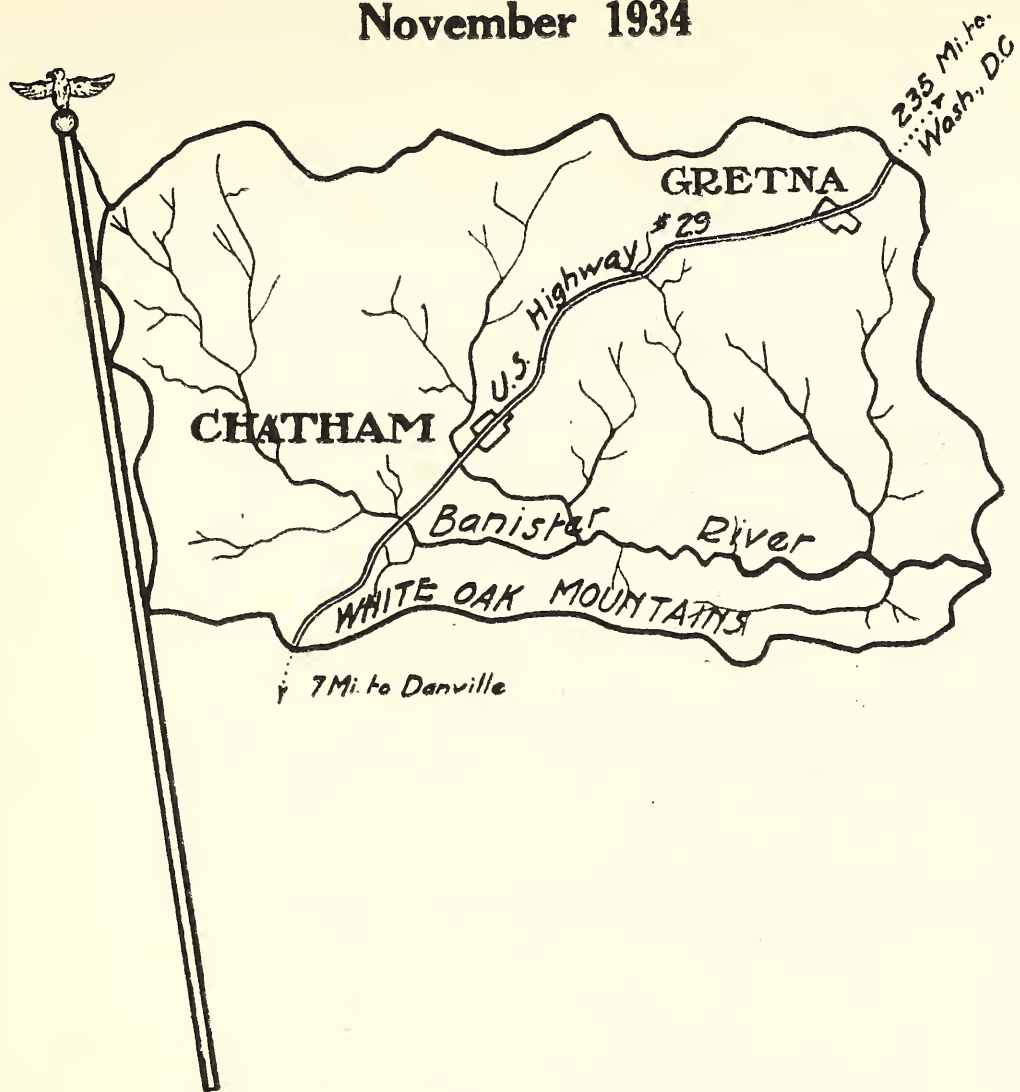


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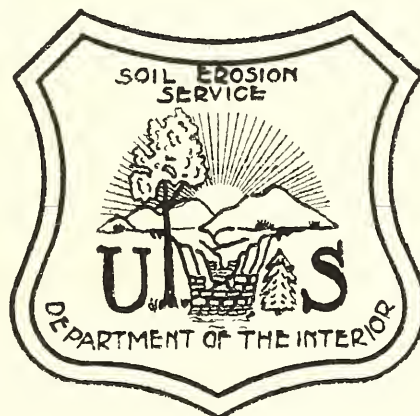
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November 1934



# Banister River Banner



VOLUME 1

CHATHAM, VIRGINIA

NUMBER 4

SOIL EROSION SERVICE  
U. S. Department of the Interior  
Chatham, Va. - Project No. 22

THE WORN OUT FARM

Encompassed by a wilderness of briar and thorn,  
Its garden over-run by noisome weeds,  
The home round which glad children played  
Stands all a-wreck and Ruin claims it for his own.

The toppling chimney tells of home-fires dead,  
The shattered pane, of light that failed;  
The unhinged door unto the broken hearthstone  
Now admits the ghosts of those forever gone.

Of cruel tragedy the ruin speaks,  
Of blighted hopes, of unrequited toil;  
And he who for the cause or reason seeks  
Needs but to ask the worn out barren soil.

The fields, once fruitful and benign,  
Sparse weeds now yield where once grew golden grain;  
Their guttered furrows of old age - the sign  
That points where all their youth and strength have gone.

"Man marks the earth with ruin", sang the bard,  
A ruin that engulfs him and his own;  
Escape it yet he may by striving hard,  
With knowledge as the saving power alone.

Oh, foolish man of high or low estate,  
Through ignorance or lack of vision clear  
Destroying his most precious heritage,  
Destroying his Hereafter and his Here!

Up, valiant souls who know the race's need,  
Proclaim the truth and faint not while you toil;  
Write plain the words where all who run may read:  
The Nation's life-blood springs from out the soil.

J. Gladden Hutton  
Brookings, South Dakota  
1930

## EROSION CONTROL IN JAPAN

The following is taken from a paper written by Mr. W. C. Lowdermilk, Vice Director, Soil Erosion Service, United States Department of Interior, Washington, D. C.

"To rule the river is to rule the mountain."  
-- Ancient Japanese Proverb.

Japan proper would be washed into the sea, or the process of erosion would be so far advanced that agriculture could scarcely be followed, were it not for the rich cover of vegetation which mantles the mountains and slopes. The rock structure of the mainland and islands favors rapid degradation, comprising chiefly coarse grained granites which readily weather and crumble, and lavas and volcanic ash which are subject to rapid erosion.

Erosion control in Japan has been intensively developed in the last 40 years, combining European and locally developed methods. In particular the Japanese forest experts have advanced to great proficiency in erosion control unexcelled, if equalled, by those of any other nation. The high costs of rice lands in the valleys from mud flows and debris of torrential erosion; and in the regulated water supply for irrigation of rice fields and for water power. The methods which are now being developed in Korea make a greater use of vegetation, will be somewhat slower, but will be done at an expense more commensurate with the wide expanse of activity and seriously eroding lands of this part of the Japanese Empire. Erosion control is considered a necessity by the Japanese people regardless of its cost. It is treated as a fire. It must be stopped or controlled. It pays in the long run. It pays in the national economy of the Japanese Empire.

\* \* \* \* \*

Mr. W. D. Hearn, Bureau of Chemistry and Soils, Washington, D. C., speaking at The Farmers Institute meeting held recently at Blacksburg, Va., said:

"Erosion is caused by the failure of the soil to soak up the rain, and thereby causing an excess run-off. Thus anything that will help the soil to absorb rain, such as humus in the soil, or roots and stubble of crops or sod, is an obstruction to the removal of soil. Erosion can also be prevented by terracing and reforestation, particularly on lands which are not suitable for cultivation. Many a profitable forest of hard wood could be grown on some lands unsuited for cultivation."

\* \* \* \* \*

"The low standard of living on farms - low from any point of view or by any criterion - will drive good farmers eventually into other occupations, and inevitably tend to run the farm population through a sieve that sorts out the better men and women and leaves the poorer grade to enjoy the low standard of living." --Charles J. Galpin.



## SOILS OF THE BANISTER RIVER WATERSHED

The Soils Department of the Soil Erosion Service makes an erosion survey map of each farm in the area, where invitations have been received from the farmer. At present only the open fields are being mapped. It is planned that the wooded areas will be mapped at a later date.

The information gathered in the survey is used as a basis for erosion control work by the other departments in the Service, in making out a program for the farmer.

The survey map shows the various types of soils found on the farm, the degree of slope found in the field, the extent of erosion (soil removed), gullying and also it shows whether the land is in cultivation, abandoned, pastured or in forest. These differences in the fields are indicated on the map by symbols.

Every farmer who has signed a cooperative agreement with the Soil Erosion Service will be given a survey map of his farm with all of the above information on it. He will also be given a pamphlet issued by the S.E.S. entitled "Soils of the Banister River Watershed". This pamphlet contains the legend which is necessary for interpretation of the symbols on the survey map. In addition to the legend the pamphlet also describes the soils in this watershed and lists the crops best adapted to the various soil types.

In the Banister River watershed we have eighteen soil series which are divided into thirty two soil types, with at least three or more soil types on every farm. A Soil series is a group of soils having similar characteristics, that is they resemble each other in color, structure and chemical composition. The soils of a series occur under similar conditions of relief and drainage and have the same or similar origin. A soil type is a member of a soil series separated from other types of the same series on the basis of difference in texture or the size of particles.

As the soils vary in origin, chemically, structure and other characteristics they also vary in crop adaptability. That is, one type of soil will grow a certain crop much better than another soil type. For example, the Davidson clay loam is an excellent soil for alfalfa and sweet clover, but a poor soil for tobacco. On the other hand Granville soils are excellent tobacco soils but poor for growing legumes.

Watch this column, entitled "Soils of the Banister River Watershed", every month. Next month we will describe some of the outstanding soils in the area, naming the crops best suited for these soils.

## LIMESTONE DOUBLES YIELDS

Tests at the Experiment Station near Statesville showed that in a 3-year rotation of corn, wheat, cowpeas, and red clover, the use of limestone doubled crop yields.

\* \* \* \* \*

"Anything approximating permanent erosion control calls for a coordinated plan of attack, with vegetation as the main implement of combat."

--H. H. Bennett, Director, S. E. S.

November 1st marks the end of a three month terracing period for us. We have completed slightly over 100 miles of terraces, benefiting 1,000 acres of land on 40 different farms. About ten farmers have availed themselves of the opportunity to build their own terraces with equipment loaned by the Soil Erosion Service. All grade lines and completed terraces have been staked and checked by our men. For the past six weeks only land that is to be seeded this fall has been worked on. Now at the end of grain seeding season, lands to be sown or planted next spring will be terraced.

In addition to the terracing 2,500 check dams have been built in gullies and terrace outlets, and about 6 acres of gullies have been prepared, fertilized, limed and seeded to rye and mixed grasses. This work is saving many tons of fertile top soil that would otherwise be going down the Banister River with each rain.

Please remember that all structures built to control erosion need a certain amount of attention. Repair weak places as soon as found. In this instance the old adage, "A stitch in time saves nine" holds true. A small amount of repair work done as soon as it is needed may prevent new gullies and save many terraces. Our urgent request to you is "Help us save your soil".

DRAFTING NEWS - Although the drafting department makes no visible show in the field, it still plays its part toward the conservation of our lands. It is our task to make outlines of the many farms to be worked in order that those who plan the crops and engineering features to be followed, can make a direct and easily translated record of the plan to be carried out.

To date this department has put on an aerial picture of the Banister River watershed, the boundaries of more than 1,500 farms covering a total of about 150,000 acres. We have made outline maps of 566 farms; detail maps showing the farming plan to be followed of 233 farms, and various road and stream maps used to expedite the work of the soils men, engineers, agronomists and foresters. There has also been completed a working map of the entire area showing roads, streams and each individual farm.

#### FORESTRY NOTES

The Forestry Division is now ready to start reforesting steep eroding fields and to make permanent plantings in gullies. A large number and variety of shrubs and vines are available for gully plantings. It is well to point out now that gullies occurring in pastures must be fenced to protect the new growth from the stock. The Soil Erosion Service will offer all cooperation possible in this connection and confidently expects a similar attitude from the landowners. The ultimate success of gully stabilization depends on a vigorous and lasting growth of vegetation to hold the remaining soil and slow down the movement of water. Trees will be planted in large gullies in fields and in all gullies in woodland or wasteland. Small gullies in open land will be planted to shrubs and vines wherever possible.

\* \* \* \* \*

A forest survey of the Banister River watershed is being made to determine the amount of timber in the area. One phase of this survey will be the determination of the growth rate of the different trees on various sites. This information will be available by early spring.

Camp Superintendent, B. F. Dyer, reports that from October 1st to October 25th, inclusive, the CCC enrollees have constructed 730 soil check dams in terrace outlet channels and eroded gullies. The types of dams constructed were wire, loose rock, log, brush and rubble masonry. In addition to this work, 5,027 lineal yards of terrace outlet channels and diversion ditches have been trenched and 1,506 square yards of gully banks sloped. This work has benefited approximately 517.6 acres of farm land.

On October 8th, 120 new enrollees arrived at this Camp to fill the vacancies caused by the demobilization of the CCC on Sept. 30th. These men are all from the state of Pennsylvania and were in training at Fort Hoyle, Md., for three days prior to their arrival here. With the addition of the new enrollees, the company strength now stands at 210 men.

The former occupations of the new enrollees are as follows: 43 laborers, 4 miners, 7 students, 16 wholly unemployed, 11 factory workers, 8 truck drivers, 10 mechanics and trade apprentices, 4 cooks, 4 farmers, 4 electricians and 4 miscellaneous.

The Camp's recently organized basketball team played the Chatham High School team on Wednesday night at 7:30 o'clock, on the Chatham High School floor, and lost in a very exciting game by the close margin of one point. The final outcome of the game being 20 to 19 in Chatham's favor.

Lt. Colonel Peasley from the Commanding General's office of the Third Corps Area inspected the Camp on October 22nd. The Colonel seemed highly impressed with the general conditions of the Camp.

#### CAMP SUPERVISORY PERSONNEL

B. F. Dyer	-	Camp Superintendent	C. A. Thompson	-	Foreman
H. C. Mauer	-	Engineer	Wm. A. Towler	-	Foreman
F. P. Trent	-	Foreman	T. M. Jackson	-	Foreman
E. W. Mundie	-	Foreman	J. D. Swan	-	Foreman
A. H. Stephenson	-	Foreman	S. D. Owen	-	Blacksmith

\* \* \* \* \*

The use of Kudzu vines in gullies is being encouraged. Actual planting will start soon and the plants used are being secured locally. Kudzu once started makes a vigorous growth and will often control small gullies without other structures. It is a legume and is relished by stock. Because of this gullies planted to Kudzu should be fenced.

#### VIRGINIA NEWSPAPERS

The cooperation of the various daily and weekly newspapers throughout the State of Virginia, is greatly appreciated. The importance of the press in disseminating information pertaining to soil conservation cannot be overlooked. Editors are constantly engaged in educational work. They, first of all, realize that "what helps the farmer will react and in turn benefit the entire community".

\* \* \* \* \*

PROSPERITY DEPENDS ON TIMBER - TIMBER DEPENDS ON PROTECTION  
PREVENT FOREST FIRES



## AGRONOMY NOTES

The fall seeding of hay and pasture mixtures is drawing to a close and our cooperators are requested not to seed any more after this week. With late seeding the danger of winter killing will be too great and better results will be secured by waiting until after March 1st. The grasses and clovers may be seeded in spring either on small grain or alone.

STORING SEED - All cooperators who have secured grass or clover seed and for any reason were unable to get them sowed are urged to keep them in a dry place, protected from rats and mice, until spring seeding time. If the seed can be emptied into boxes it will reduce mouse and rat injury. In no case should the bags be placed so they will touch each other.

\* \* \* \* \*

No further seed notices will be mailed this fall. Cooperators who have been allotted lespedeza and other seed will be notified during late winter when they are ready for delivery.

LIME - The lime which has been allotted to farmers may be spread on top of the ground any time during the winter, without fear of damage to the small grain or grass. On land to be fallowed it will be best to spread the lime after fallowing. This keeps it near the surface of the soil.

The Soil Erosion Service is delivering a part of each farmer's allotment and we are expecting the farmer to haul part. Many are cooperating fine in this while a few seem to be trying to get the most and do the least.

## SOIL EROSION NOTES

The Soil Erosion Service has worked out Cooperative Agreements with 268 farmers to date. These are truly cooperative agreements as this work cannot be carried to completion unless the farmer does his full share. Every farm is treated as a single unit and each farmer who signs an agreement must cooperate to the fullest extent of his ability. The Soil Erosion Service cannot do all the hauling of seed, lime and fertilizer for every cooperator. Neither does it hold that because we haul something for one that we will haul the same commodity for all other cooperators. We are trying to push the erosion control work just as rapidly as possible and do that work which is most necessary in order to get our work underway.

To those having farms who have not been worked, we would suggest that you get in touch with the Soil Erosion Service office at Chatham, Virginia, Telephone No. 150, immediately and request some one to pay you a visit. In the meantime, study your farm carefully and get your ideas clearly in mind as to your farming operations for the next five years. This will make it much easier to work out a five-year plan that will enable you to control erosion by means of strip-cropping, rotations, pastures and meadows, gully-control and reforestation on your farm. One or all of these may be adapted.

\* \* \* \* \*

Every fire prevented means more timber, greater wealth, better soils, more employment, and a greater pride in our State.

\* \* \* \* \*

Did you know that numerous tests have shown erosion robs the soil of twenty-one times as much plant food as the plants themselves use?

## NEWS ITEMS

Prof. Chas. E. Seitz, a member of the Soil Erosion Service Advisory Council of V. P. I., paid a short visit to the Soil Erosion Service office October 10th.

Mr. Lyman Carrier, Chief Agronomist, Soil Erosion Service, Washington, D. C., was in the Soil Erosion Service office on Saturday, October 13th.

Dr. J. H. Stallings, Regional Director of the High Point Project, accompanied by James A. O'Neill, Chief Clerk, visited Chatham Project Saturday, October 13th.

Mr. T. B. Chambers, Assistant to Chief Engineer, of the Washington office, spent Saturday, Sunday, and Monday in Chatham, visiting the Soil Erosion Service.

Congressman Thomas G. Burch was in Chatham Monday, October 15th, and visited Soil Erosion Service.

Mr. A. H. Veazey, Chief Agronomist from High Point office, spent a day recently with the Agronomy Department of the Chatham branch, being shown over the area by Mr. T. L. Copley, Chief Agronomist.

Mr. J. A. Waller, Extension Engineer of V. P. I., with a group of men interested in terracing, visited the Project one day recently and viewed the equipment working in the field.

Mr. R. A. Winston, Technical Secretary, Washington, D. C., spoke at the Lynchburg Rotary Club on Soil Erosion Control in Piedmont Virginia, on Tuesday, October 30th, at the Virginian Hotel. He also spent sometime at the Soil Erosion office in Chatham and visited the Soil Erosion exhibit at Smith Seed & Feed Company, Danville, Virginia.

RAINFALL RECORD - Rain guages are being placed in ten different localities of the project area and one of our cooperators at each of these points has offered to record all rainfall and send the report in to our office at the end of each month.

With this information we will be able to study the amount of erosion and also the effectiveness of various erosion control measures being used on the project. We also hope to report the amount of rainfall in the area monthly.

### PERMANENT STAFF MEMBERS

Dr. J. H. Stallings, Regional Director

Mr. P. F. Keil, Assistant Regional Director

Mr. J. K. Alvis, Agri. Engineer

Mr. E. H. Howard, Draftsman

Dr. A. J. Baur, Soils Expert

Mr. T. C. Maurer, Acting Soil Eros. Sp.

Mr. B. D. Bennett, Clerk

Miss Juanita M. Mitchell, Junior Clerk

Mr. T. L. Copley, Chief Agronomist

Mr. F. F. Nickels, Soils Expert, in Chg.

Mr. J. P. Crawford, Chief Clerk

Mr. W. G. Nunn, Ass't Agri. Engineer

Mr. H. L. Dunton, Ass't Soil Eros'n Sp.

Mr. J. B. Pike, Jr., Chief Forester

Miss Hallie W. Farson, Stenographer

Mr. O. W. Price, Junior Forester

Mr. T. H. Garrett, Jr. Agri. Engineer

Mr. J. A. Smart, Ass't Soil Eros. Sp.

Mr. E. F. Goldston, Soils Expert

Mrs. Nilla B. Tredway, Stenographer

Mr. John L. Harrison, Agri. Aide

Miss Helen F. Wooding, Stenographer

Mr. R. C. Harvey, Ass't Agronomist

Mr. Alec Yedinak, Jr. Soils Expert